REMARKS

Claims 1-39, all the claims originally pending in the application, stand rejected. Claims 4 and 32 are the subject of an objection. Claims 4, 10 and 11 have been cancelled without prejudice or disclaimer. Claims 1, 3, 5, 12-16, 17, 23, 27, 32 and 37 are amended.

Claim Objections

The Examiner has objected to claim 4 because it recites an interface, which is already recited in parent claim 1. Applicant has cancelled claim 4 without prejudice or disclaimer, thereby rendering this objection moot.

The Examiner has objected to claim 32 because of a typographical error. This error has been corrected.

Claim Rejections - 35 U.S.C. § 112

Claims 3, 5 and 29 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite due to certain typographical errors in the claims. These errors have been corrected.

Claim Rejections - 35 U.S.C. § 102

Claims 1-2 and 4-11, 14-33 and 37-39 are rejected under 35 U.S.C. § 102(e) as being anticipated by Ayanoglu (5,717,689). This rejection is traversed for at least the following reasons.

The present invention as defined in the system of independent claim 1, the apparatus for a satellite/wireless communication system of independent claim 17, the apparatus for a frame relay wireless system of claim 23, the method of claim 27 and the apparatus of claim 37 all relate to the compression of headers. In particular, based on the teachings at pages 16-19, with reference to Figs. 4-7, the header is stripped off of a packet or cell and subjected to compression for separate transmission. In exemplary embodiments at page 16, the five octets of a header are separated from the 48 octets of data and subject to compression, taking the four octets related to virtual circuit and virtual path connections and converting them to two octets. The HEC checksum is not compressed.

Claim 1, thus requires "compressing the separated header" and combining the compressed header with the payload to form a compressed header cell. Claims 17 and 23 requires corresponding "means" to perform such function. Claim 27 specifies the steps involved in reducing the number of octets in a header and combining them with a payload portion, while claim 37 specifies a detector, a compressor and a combining unit. All of these claims therefore specify a technique that requires a cell to carry the information for a header look up table.

Ayanoglu, by contrast, discusses at cols. 21 and 22, with reference to Fig. 25, the use of a header compression field 284 that is a single bit, for example equal to 1, where the VPI/VCI field of a current cell is equal to that of a previous cell. A bit value of 0 indicates that the VPI/VCI field is not equal. Thus, if the previous cell's header is to be used again, the bit value 1 is simply sent and the previous cell's header value is reused. This is different from the octet compression technique used in the present invention. Ayanoglu, does mention at col. 21, lines 57-67 that in the general case the header field has "n" bits (and illustrates as much in Fig. 25), however, even with the n bits, Ayanoglu does not transmit information for access to a look up table at the receiver. Instead, Ayanoglu stores the prior cell's header and recall's that value if there is repetition in a subsequently transmitted cell. This is different from the present invention where the means for compressing uses a different technique, namely a look up table, as now claimed.

Further, Applicant notes that the present invention concerns a wireless ATM system with header compression where there is a connection between two LANs. Specifically, Applicant's invention is concerned with connecting two separate LANs with a single (typically satellite) link. Ayanoglu, however, deals with a mobile, ad-hoc network with a number of wireless links that can be considered to be only a single LAN. Finally, Ayanoglu has multiple custom ATM switches per 'LAN', while Applicant's system contains a single, conventional ATM switch per LAN.

On the basis of the foregoing argument and amendment, Applicants respectfully submit that the presently claimed invention is patentable.

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Claim Rejections - 35 U.S.C. § 103

Claims 12 and 13 are rejected under 35 U.S.C. § 103(a) as being obvious in view of Ayanoglu (5,717,689). This rejection is traversed for at least the following reasons.

The claims have been made independent and specify that there are a specific number of octets, which reflect a look up table approach not found in Ayanoglu or obvious therefrom. Thus, these claims should be patentable.

Claim 3 is rejected under 35 U.S.C. § 103(a) as being obvious over Ayanoglu (5,717,689) in view of Pasternak (5,710,756). This rejection is traversed for at least the following reasons.

First, the claim depends from claim 1, which has been demonstrated to be patentable over Ayanoglu. These deficiencies are not remedied by Pasternak. Further rather than support the Examiner, Pasternak has teachings in Applicant's favor. Specifically, notwithstanding the Examiner's statement at page 14 that the reference teaches "providing error correction coding in the form of interleaving to the transmitted data (Col. 3, lines 18-30). Pasternak actually teaches away from it (col. 3, lines 24-25):

"interleaving functions are <u>not desired</u> for wireless ATM.

Thus, Applicant respectfully submits that claim 3 is patentable because the two references cannot be combined.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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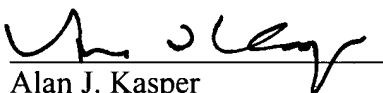
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